EM 3/19/Course

U.S. Department
of Transportation
**National Highway
Traffic Safety
Administration**

Emergency Medical Services Instructor Training Program
A National Standard Curriculum

Course Guide

NEWARK PUBLIC LIBRARY

MAR 19 1986

U. S. GOVT. PUBS.
DEPOSITORY 326

First Edition—1986

READEX best copy available

Contents

Preface iii
Foreword v
Introduction vii
The Instructional Program
Course Goals 1
The Competent EMS Instructor 1
Student Qualifications 2
Course Scope, Performance Objectives 2
Course Planning Considerations
Course Scheduling 5
Class Size 5
Instructor Trainer Qualifications 5
Customizing the Course 5
Materials and Equipment 6
Facilities 6
Estimating Course Costs 6
Program Management and Evaluation
Maintaining Records 7
Assessing Student Achievement 7
Program Evaluation 8
Appendix A
Sample Course Schedule 9
Appendix B
Student Mini Presentation Evaluation Form 13
Appendix C
Instructor Training Program Evaluation Form 15
Appendix D
Selected References on Instruction and Learning 17

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402

Preface

The National Highway Traffic Safety Administration (NHTSA) has assumed responsibility for the development of training programs that are responsive to the standards established by the Highway Safety Act of 1966 as amended. These training programs are designed to provide national guidelines for training. It is NHTSA's intention that they be of the highest quality and be maintained in a current and up-to-date status from the point of view of both technical content and instructional strategy. To this end, NHTSA supported the current project which involved the development of a curriculum package deemed of high value to the States in carrying out their annual training programs.

While NHTSA has successfully developed numerous training programs for EMS personnel—i.e., Basic EMT, EMS Dispatcher, First Responder and EMT-Paramedic—which have served as a national standard for many years, the instructional delivery of those standardized programs varies markedly. In the majority of programs nationwide, instructors have little or no formal education or training in instructional design and delivery. Recognizing the lack of standardization and the limited background of EMS instructors, this training program was developed.

NHTSA wishes to thank Technical Assistance and Systems Consultation, Inc., for their work in the coordination of this project. Particularly helpful was TASC's recognition of the need for extensive review and input from current EMS instructors and prominent EMS organizations. Dr. Michael L. Tracy served as the principal investigator for TASC, Dr. Fred Kladder and Dr. Carl F. Calkins served as special advisors to TASC during this effort.

NHTSA also wishes to thank the National Council of State Emergency Medical Services Training Coordinators which served as the primary subcontractor. Their assistance in the development and review of these materials was invaluable. Specifically, acknowledgement is provided to the following project staff for the National Council of State EMS Training Coordinators:

Patrick Cote, Maine
S. Gail Dubs, Pennsylvania
Michael F. French, Wisconsin
George L. Johnson, New York
Tyler B. Larson, North Dakota
Nels D. Sanddal, Consultant NCSEMSTC

NHTSA also recognizes the following individuals who represented their organizations in an official liaison capacity during this project.

Rocco V. Morando, representing the National Registry of Emergency Medical Technicians.

John Sigafoos, representing the National Association of Emergency Medical Technicians.

Janet Head, representing the Society of Instructor/Coordinators, a division of the National Association of Emergency Medical Technicians.

Foreword

Program Manuals

The Course Guide has been designed specifically to aid administrators and course coordinators in carrying out their responsibilities relative to the training course. Two other documents complete the training package.

Instructor Lesson Plans. This document has been designed for use by the instructors who are teaching this course. It contains detailed content outlines, requirements and guidance for teaching each course lesson.

Student Study Guide. This document provides an overview of each course lesson and includes study suggestions to aid students, in this case instructor candidates, in achieving course objectives. This guide directly parallels the Instructor Lesson Plans and encourages the student to participate more fully in the training program.

Introduction

The Course Guide

This manual is designed to assist the course administrator and coordinator in understanding, developing and implementing all phases of an EMS Instructor Training Course. The guide is divided into four sections:

The Introduction: This section is designed to provide an overview of the training program and the administrator's and coordinator's responsibilities in the organization and management of the program.

The Instructional Program: This section covers work performance addressed by the course, student qualifications, student performance objectives, course structure and instructional strategy. It includes a brief description of each course lesson.

Course Planning Considerations: This section includes suggestions for scheduling course lessons; determining class size and instructor qualifications; and specifying required materials, equipment and facilities. It also includes considerations involved in estimating course costs.

Course Management and Evaluation: The final section includes suggestions for managing and evaluating student achievement in the course and program evaluation processes.

This *Course Guide* has been prepared to aid the course coordinator in planning and managing the DOT *Emergency Medical Services (EMS) Instructor Training Course.* The overall objective of the course is to improve the quality of emergency care rendered to victims of accidents and illnesses through improved instructional delivery of other NHTSA training programs, e.g., Basic Emergency Medical Technician. As such the course develops skills in instructional design, delivery and evaluation. It also provides an orientation to the structure and design of NHTSA EMS training materials.

The purpose of the training is to ensure individual competency in each student by the successful completion of each objective. The course consists of 12 lessons involving 40 hours of instruction and participation. Within that time frame 10 hours are allowed for the students to prepare, deliver and receive corrective feedback on two mini presentations. Those times are calculated on the first session (lesson 7) including one three to five minute presentation and five minutes allowed for review and critique. The second session (lesson 11) is scheduled for a ten minute presentation and ten minutes of review and critique for 12 students. Times will have to be adjusted accordingly to accommodate larger or smaller groups of students. The titles and times required for each of the 12 lessons are provided on page 6 of this guide.

Additional modifications to this training program may be necessary to meet specific certification requirements within individual States. The course administrator should check with the lead State EMS agency or office for the specific requirements. It is expected that such modifications will be in the form of supplemental information and that the essential information covered in this curriculum will be presented.

There will often be a number of persons involved in the production of an EMS instructor training course. For clarity the following terms are defined as they will be used throughout this document.

- **Course Administrator:** An individual responsible for course planning, operation and evaluation activities. While the course administrator is responsible for the overall operation of the training course, this person need not be qualified or involved in the actual teaching of specific course lessons. In some areas or States this individual will be referred to as the "course coordinator."

- **Instructor Trainer:** The individual(s) who presents any or all of the subject matter contained within this curriculum. Additionally this person oversees the mini presentations and makes final evaluations concerning student competence.
- **Instructor Aides:** Individuals who assist with the presentation of material or serve as a resource to students during the preparation of mini presentations.
- **Student:** The instructor candidate who is participating in the training program and will receive some official recognition as an EMS instructor upon successful completion of the training program. It is assumed that this individual has the clinical competence in the subject matter he will teach—e.g., EMS Dispatcher—but needs information and skills on instructional techniques and methodology. A pre-test or other screening method should be completed by each student prior to program entry to ensure that knowledge and skill levels meet or exceed the requirements of the level at which they intend to instruct.

The standards set in this Course Guide are to be used as a planning tool for the development and evaluation of an EMS Instructor Training Course. It should provide the necessary assistance to the course administrator, coordinator, and instructor trainer in organizing, initiating and evaluating any such course. The actual conduct of the course will require the use of additional materials and equipment which are detailed later in the Course Guide. Essential adjuncts to this Course Guide for the successful completion of an EMS Instructor Training Course are the Instructor's Lesson Plans and Student Study Guide which are part of this curriculum package.

The Instructional Program

Course Goals

This course is designed to provide students who are clinically competent in a specific content area with the instructional skills to deliver a training package to their future students effectively. It focuses on the three broad categories of instructional preparation, presentation and evaluation.

Since this course is specifically designed to address the preparation of the student to perform instructional duties, it does not include in-depth knowledge or skills of the wide variety of subject areas that the individual instructor may be addresing. *At the discretion of the agency, State or other authority the individual should be required to complete a written or practical examination as part of the screening and selection process.* Since this course is designed on the premise that the candidate is clinically competent, every effort must be made to validate such an assumption. An orientation to the curriculum packages that DOT/NHTSA has prepared on the various subject areas, e.g., EMT Paramedic, should also be provided.

Upon the completion of this instructor training program, the student should be able to effectively use any of the curriculum packages in which they are clinically competent.

This course provides instruction and skills practice sufficient to achieve certain broad goals. At the conclusion of the course the student should, at a minimum, be able to:

1. Obtain the appropriate curriculum packages developed by DOT/NHTSA.
2. Organize and prepare materials for presentation.
3. Effectively deliver and ensure the retention of cognitive and psychomotor objectives contained within the curriculum package.
4. Prepare instructional aids which will increase the effectiveness of the training program delivery
5. Ensure that all necessary equipment and materials necessary for student learning is present and operational.
6. Evaluate student performance and provide structured corrective feedback to improve subsequent performance.
7. Provide a mechanism for evaluating the training program's effectiveness.

Specific performance objectives for each unit of the course are presented at the beginning of each unit lesson plan in both the Instructor Lesson Plans document and the Student Study Guide document.

The Competent EMS Instructor

The training program described in this Course Guide is aimed at preparing EMS instructors to effectively train students in one or more of the DOT/NHTSA curriculum packages. Since the effectiveness of the practitioners such as First Responders is directly related to the quality and effectiveness of the training they receive, the importance of the EMS instructor cannot be overstated. Regardless of the instructor's level of competence in a given subject area, if they can not deliver that information in an organized and professional manner, the training program will be only partially successful in its intended purpose.

DOT/NHTSA's goal of reducing death and disability as it relates to highway traffic safety can only be achieved if the curricula packages which have been developed are used to their fullest advantage by qualified EMS instructors.

Generally speaking, the role of the instructor falls into three broad categories:

Instructional Preparation: This area refers to the information and skills which the instructor must possess to organize and prepare materials to achieve training objectives. Such topics as principles of adult learning, student/instructor interaction, use of instructional aids and the use of appropriate reference materials are incumbent to this preparation phase.

Instructional Delivery: Once prepared, the instructor must be able to provide the student with the necessary information and skills to allow for the achievement of the instructional objectives. This will necessitate good communications skills, the use of appropriate training formats, an ability to provide innovative learning environments, and the ability to maintain a schedule in accordance with the lesson plans.

Instructional Evaluation: The instructor must be able to measure student progress as well as overall training effectiveness. Since appropriate EMS practice requires each student to be clinically competent, the instructor must ensure that the objectives of the program have been met by everyone. Instructional strategies must be modified to ensure such achievement. The effectiveness of the training program must be continually monitored and refinements made as indicated by both formal and informal evaluation processes.

Student Qualifications

This course is designed primarily to provide specific skills and knowledge in the field of EMS instruction to experienced EMS personnel. The student must be thoroughly familiar and competent in all content areas of his particular discipline, e.g., EMS Dispatching.

The prospective student should meet the following prerequisites:

1. Certification or licensure within the discipline in which he will become an instructor. This prerequisite may be waived if the individual has a higher level of content knowledge and expertise than would be required within the course he will teach, i.e., a physician or nurse who intends to teach in an EMT course;
2. Must be able to demonstrate all skills required to be taught within the course he intends to teach. A pre-course screening of skills should be conducted to ensure the candidate's skill level;
3. Must be proficient in reading and writing English and have effective written and oral communication skills;
4. Must be high school graduate or equivalent; and
5. Current or prospective involvement as an EMS instructor.

Additional qualifications may be imposed by the State or area in which the course is given. However, the imposition of requirements that are unrelated to job performance must be avoided.

In the event that the course is being conducted by a college or university and credits are being received by the students, additional restrictions may apply. The administrator should contact the state EMS office prior to conducting the program to be certain that all requirements are met.

Course Scope Performance Objectives

The total course consists of 12 lessons of instruction and practice designed to provide the necessary knowledge and skills to accomplish the EMS instructor's functions. The lessons are:

Lesson 1

Principles of Adult Learning. (2 hrs.) The student is introduced to general learning theory and the specific principles of adult education (andragogy).

Lesson 2	**Student Learning Styles.** (2 hrs.) The student is provided with information relating to methods by which specific individuals learn and retain information and skills. The student is shown various styles and techniques used by a variety of instructors which enhance student learning rates and retention.
Lesson 3	**Development and Utilization of Instructional Objectives.** (2 hrs.) The student learns techniques of developing and utilizing instructional objectives as the foundation for sound instructional design. The three components (Conditions, Performance and Criteria) of measurable objectives are stressed and examples are drawn from the student's expected content area, e.g., First Responder.
Lesson 4	**Preparing and Using Lesson Plans.** (3 hrs.) The essential components of a lesson plan are discussed in general and the format utilized within the DOT/NHTSA EMS curricula packages are reviewed in detail.
Lesson 5	**Preparation and Use of Instructional Aids.** (4 hrs.) General principles of audiovisual presentations and the use of other instructional aids is presented. Specific instruction is presented in how the student can prepare his own aids if none are available or are cost prohibitive.
Lesson 6	**Class Participation Techniques.** (4 hrs.) Methods of encouraging student participation in the instructional process are introduced. Techniques of fielding questions and creating a positive learning environment are presented.
Lesson 7	**Mini Presentation One.** (4 hrs.) The student prepares and delivers a 3 to 5 minute presentation on a non-EMS-related topic which does not include skill instruction. Peer and faculty evaluation is provided. This session serves as a baseline for subsequent review of the candidate's skills during the mini presentation in lesson 11.
Lesson 8	**Practical Skills Instruction.** (4 hrs.) Specific instructional technology used in psychomotor skill acquisition such as task analysis are discussed and practiced. The importance of skill acquisition and maintenance in EMS programs is stressed.
Lesson 9	**Providing Student Feedback.** (2 hrs.) The principles and techniques of corrective feedback as an instructional method are discussed. The broader spectrum of analyzing performance problems is introduced.
Lesson 10	**Evaluating Student Performance.** (3 hrs.) Methods of evaluating cognitive and psychomotor objectives are presented. The student is introduced to both formal and informal evaluation processes.
Lesson 11	**Mini Presentation Two.** (6 hrs.) As an evaluation of the student's ability to instruct, each student prepares and presents a 10 minute segment of a lesson specific to the content area in which he or she will be teaching. Review and evaluation is provided to each student by the faculty and peers. Video tape should be used for self evaluation.
Lesson 12	**Orientation to DOT/NHTSA Format and Materials.** (1 hr.) The curricula packages available for EMS instruction from DOT/NHTSA are introduced. Specific review of the content area in which the students will be teaching is completed and local resources will be discussed.

Specific performance objectives are reproduced at the beginning of each lesson plan.

The training program is designed to be presented using a variety of teaching strategies: lectures, group discussions, demonstrations, audiovisual presentations, simulations and practice sessions. The thrust of the training is to develop specific instructional skills which flow from general principles of instruction of communication and emergency care. Students should be

involved in the training program to the greatest extent possible through practical application of the general knowledge and principles presented to a wide range of specific EMS instructional situations and problems. It must be stressed that the mini presentations and other practical exercises are not intended to provide additional lecture time, but to provide intensive practice in the skills required of an EMS instructor under the supervision and analysis of the faculty.

Because the emphasis of the training is on the development of student competency, the number of hours selected should be used only as a course planning reference and should not be considered as a measure of successful course completion. A student has only successfully completed the course when he or she has demonstrated mastery of the skills and knowledge objectives in the course, regardless of the number of hours involved. A suggested range of hours has been presented for each unit, but the needs of the local area will determine the precise number of hours to be used in the course. A sample schedule is found in Appendix A.

Course Planning Considerations

Course Scheduling

As indicated previously and in Appendix A, the course can be scheduled in numerous ways to be adaptable to the needs of any local area. Since achieving the required competencies is the measure of course completion, no rigid standard for course scheduling can be set.

In addition, the length of the course and the schedule will depend on the number of students, previous experience and knowledge levels of the students.

The instructional units and lesson plans are designed for a course which is taught in a time frame of 40 hours. Significant departures from this time frame will require commensurate adaptation of the lesson outlines and materials. It is unlikely that all performance objectives presented can be successfully achieved in a shorter time period than the minimum suggested.

Class Size

The EMS instructor course has been designed to maximize participation by the student. Students should be encouraged to ask questions, participate in discussions and annotate their study guides during lectures. Active involvement in class activities by the students will enhance their learning.

During the development of the mini presentations students will need a relatively quiet space in which to work. Consultation by the faculty may be necessary on an individual basis during this time and for that reason it is recommended that the student/instructor ratio not exceed 6 to 1 during the practical exercises.

Due to the amount of time necessary for preparation, presentation and evaluation of mini presentations, it is recommended that the class size be limited to not more than twenty. If that number is exceeded, additional time must be added for the mini presentations as this is a critical component of the course and must not be deleted.

Instructor Trainer Qualifications

The instructor trainer for this course should be an experienced EMS provider who is both knowledgeable and experienced in general instructional theory and design and in specific EMS instruction. While a formal degree in education is not required, it is desirable. In the absence of such credentials the instructor must have demonstrated competencies in the field of education and instruction.

If the course is being conducted for college or university credit, additional qualifications may be imposed. While much of the course may be taught by a single instructor, additional faculty members will be necessary to ensure participation during practical exercises. A "teach teaching" approach is recommended so that students can have contact with a variety of instructional styles and techniques.

Customizing the Course

While this training program may be modified to meet State or local requirements the essential structure and format should remain constant. It is recommended that when the course is presented, it be presented to a content specific group, e.g., First Responder instructor candidates. This allows the course to become more closely oriented to that specific curriculum and encourages a more thorough familiarization with the content by the student. In the event that the course is taught to a wide variety of individuals in a generic EMS instructor fashion, every effort should still be made to encourage the utilization of the pertinent curriculum package for each student.

it is recommended that, whenever possible, this course be conducted in a formal institution so that course credit as well as formal EMS recognition can be offered. The program can be supplemented in order to meet the requirements of the institution. In those States which require EMS instructor certification or licensure, all requirements must be met. Contact the State lead EMS agency prior to the implementation of this program.

Materials and Equipment

It is recommended that approximately 100 blank transparencies be available for both instructor and student use. The instructors can use the transparencies to develop their own visuals for selected course sessions. This is, of course, in addition to the full complement of audiovisual and other standard teaching resources which would be expected at any high quality training program. A more detailed list is provided on page 11 of this guide and the specific requirements for each lesson are listed at the beginning of each lesson plan.

Facilities

A large conference room or small lecture hall (large enough to accommodate 12 students working individually or in small groups) is recommended for this course. The facility should provide sufficient floor space for students to present skill demonstrations. Each student should have a chair and well lit work space in which he can take notes. The arrangement should allow students to work in small groups or individually, free from distractions, in order to practice teaching skills and should provide for an unobstructed view of the lecturer, projectors and screen, chalkboard or flipchart. Space should be provided for accommodating an overhead projector, projectors and screen.

Estimating Course Costs

Planning considerations covered in this section of the Course Guide can provide the basis for estimating costs for arranging for and conducting the course. Other costs will be incurred in managing and evaluating the program. Specifically, the administrator should consider costs associated with the following:

Salaries
- —Instructors
- —Instructor aides (if any)
- —Support staff (typing, records maintenance)

Facilities
- —Classroom and equipment (tables, chairs, etc.)
- —Office space and equipment (desks, files, etc.)

Materials
- —Training aids—overhead projector and screen, chalkboard, flipchart pad and stand, transparencies, projection markers, note paper, video tape, etc.
- —Documents—The Instructor Training Curriculum package; the appropriate DOT/NHTSA EMS curriculum packages
- —Student and instructor recruiting materials, registration forms, data collection forms, records and reports, postage

Travel and per diem as appropriate
- —Instructors
- —Students

Transportation to and from classes

Program Management and Evaluation

Maintaining Records

The administrator must assume the responsibility for the smooth functioning and evaluation of the course. He must monitor each unit to ensure appropriate content coverage, emphasis and procedures as well as to maintain the program on schedule. In addition, he must assure the collection, maintenance and dissemination of any records required to document the conduct of the program and to assess how well the course achieves its objectives.

With regard to records, it is recommended that information on the following be maintained:

- Student recruiting procedures and forms
- Number and qualifications of those completing the course
- Number and qualifications of individuals who did not complete the course and the reason for not completing the course, if known
- Instructor performance
- Names and performance of guest speakers, if appropriate
- Adequacy and availability of facilities and resources
- Cost: total costs, cost per student, costs for each element of the course.

The preceding types of information can aid the administrator in evaluating each course as it is given and in improving the quality and efficiency of future courses.

Assessing Student Achievement

The course includes several means for assessing student achievement of performance objectives. The major one is the student's performance during the practice-teaching sessions. Student contributions during critique sessions should also be noted. Of course, informal evaluation of student achievement of objectives should be made during all course sessions. Additional written tests may be developed by the instructors to evaluate end-of-lesson or end-of-course objectives as deemed necessary. Each student must demonstrate attainment of knowledge and skill in each area taught in the course. It is the responsibility of the course instructor to assure that students attain proficiency in each topic area before they proceed to the next area.

If, after counseling and special practice, a student fails to demonstrate the ability to learn specific knowledge and skills, the course instructor should not hesitate to fail the student. The level of knowledge and skills attained by a student in the classroom will be reflected in his performance on the job. This is ultimately a reflection on the course administrator and instructor. Student requirements for completing the course are as follows:

Skills: In the area of skills, students either pass or fail. Students demonstrate proficiency in all skills, not only on the final evaluation, but also in each lesson or selected topic area. Special remedial sessions may be provided as needed.

Knowledge: In this area, students must receive a passing grade, not only on the final examination but also on selected tests of topic areas. Special remedial sessions may be provided as needed.

Personal Attitude: Each student must demonstrate conscientiousness and interest in the course. Students who fail to do so should be counseled while the course is in progress so that they may be given the opportunity to develop and exhibit the proper attitude expected of an EMS instructor.

Attendance: Students should be required to attend all lessons. At the discretion of the instructor, a student missing a lesson may demonstrate the fulfillment of all skills and knowledge covered in that lesson. One hundred percent attendance is required at all practice, tests and evaluation sessions as well as the mini presentation. At the discretion of the instructor, special

examination sessions may be provided for students who miss tests for valid reasons.

Since the overall intent of the course is to develop the student's capability relative to instructing EMS courses, the ultimate indication of program effectiveness is how the student subsequently performs as an instructor of the course. If at all possible, the instructor should include in his evaluation plan an assessment of each student's performance as an instructor of a DOT/NHTSA EMS curriculum package. During his or her first training program, the new instructor should be monitored and assisted by an experienced instructor.

Program Evaluation

An ongoing evaluation process must be initiated to identify organizational or instructional deficiencies which affect student performance. This evaluation process should be twofold in approach—objective and subjective. Two main methods of objective evaluation are generally used: 1. How well do students measure up to standardized examinations? and 2. How well do EMS instructor's train their students? Group and individual deficiencies in these areas may indicate significant problems in the training program.

Subjective evaluations should be conducted at regular intervals by asking the students written questions on their opinions of program efficiency and effectiveness. At some point, the student should be provided the opportunity to comment on each instructor's presentation, style and effectiveness. Likewise, the student should be asked to comment on the program's adherence to the specified course of instruction, the quantity and quality of practical skill development sessions and the validity of the examination sessions. An example of a training program evaluation form is included as Appendix C.

The purpose of program evaluation is to strengthen subsequent training efforts. Information provided from all sources should be legitimately reviewed and changes incorporated as suggested. Due to the important nature of this training program every effort should be made to ensure the highest quality of instruction possible.

Appendix A:
Sample Course Schedules

Example 1: 40 Hour Block

Monday	8:00 A.M.	Registration
	8:30	Welcome and Introduction
	9:00	Lesson 1: Principles of Adult Learning
	11:00	Lunch
	12:30 P.M.	Lesson 2: Student Learning Styles
	3:30	Break
	4:00	Lesson 3: Development and Utilization of Instructional Objectives
Tuesday	8:00 A.M.	Lesson 4: Preparing and Using Lesson Plans
	12:00 P.M.	Lunch
	1:00	Lesson 5: Preparation and Use of Instructional Aids
Wednesday	8:00 A.M.	Lesson 6: Class Participation Techniques
	12:00 P.M.	Lunch
	1:00	Lesson 7: Mini Presentation One
Thursday	8:00 A.M.	Lesson 8: Practical Skill Instruction
	12:00 P.M.	Lunch
	1:00	Lesson 9: Providing Student Feedback
	3:00	Break
	3:30	Lesson 10: Evaluating Student Performance
Friday	9:00 A.M.	Lesson 11: Mini Presentation Two
	12:00 P.M.	Lunch
	1:00	Lesson 11: Continued
	3:00	Break
	3:30	Lesson 12: Orientation to DOT/NHTSA Format and Materials
	4:30	Evaluation and Feedback

Note: While it is possible to provide this training in a compressed time frame of one week, generally better results are achieved if the course is spread out over a longer period of time. This allows for more practical skill application and independent study on the part of the student. Of course, following the principles of adult learning introduced in this course, longer lessons should be incorporated with breaks as needed.

Example 2: Two 20 Hour Blocks

Friday	6:00 P.M.	Registration
	6:30	Welcome and Introduction
	7:00	Lesson 1: Principles of Adult Learning
Saturday	8:00 A.M.	Lesson 2: Student Learning Styles
	11:00	Lesson 3: Development and Utilization of Instructional Objectives
	12:00 P.M.	Lunch
	1:00	Lesson 3: Continued
	3:00	Break
	3:30	Lesson 4: Preparing and Using Lesson Plans
Sunday	8:00 A.M.	Lesson 5: Preparation and Use of Instructional Aids
	12:00 P.M.	Lesson 6: Class Participation Techniques
	4:00	Evaluation, feedback & assignments
Friday	7:00 P.M.	Completion of assignments
Saturday	8:00 A.M.	Lesson 7: Mini Presentation One
	12:00 P.M.	Lunch
	1:00	Lesson 8: Practical Skill Instruction
	5:00	Dinner
	6:30	Lesson 9: Providing Student Feedback
Sunday	9:00 A.M.	Lesson 10: Evaluating Student Performance
	12:00 P.M.	Lunch
	1:00	Lesson 11: Mini Presentation Two
	5:00	Dinner
	6:00	Lesson 11: Continued
	8:00	Break
	8:15	Lesson 12: Orientation to DOT/NHTSA Format and Materials
	9:15	Evaluation and Feedback

Note: A number of additional variations are possible. It is recommended however that the sequence of the lesson remain as presented.

Example 3: Semiweekly Evening Classes

Monday	7:00 P.M.	Registration
	7:30	Welcome and Introduction
	8:00	Lesson 1: Principles of Adult Learning
Wednesday	7:00 P.M.	Lesson 2: Student Learning Styles
Monday	7:00 P.M.	Lesson 3: Development and Utilization of Instructional Objectives
Wednesday		Lesson 3: Continued
Monday	7:00 P.M.	Lesson 4: Preparing and Using Lesson Plans
Wednesday	7:00 P.M.	Lesson 4: Continued
Monday	7:00 P.M.	Lesson 5: Preparation and Use of Instructional Aids
Wednesday	7:00 P.M.	Lesson 5: Continued
Monday	7:00 P.M.	Lesson 6: Class Participation Techniques
Wednesday	7:00 P.M.	Lesson 6: Continued
Monday	6:00 P.M.	Lesson 7: Mini Presentation One
Wednesday	7:00 P.M.	Lesson 8: Practical Skill Instruction
Monday	7:00 P.M.	Lesson 8: Continued
Wednesday	7:00 P.M.	Lesson 9: Providing Student Feedback
Monday	7:00 P.M.	Lesson 10: Evaluating Student Performance
Wednesday	7:00 P.M.	Lesson 10: Continued
Saturday	9:00 A.M.	Lesson 11: Mini Presentation Two
	12:00 P.M.	Lunch
	1:00	Lesson 11: Continued
	4:00	Break
	4:15	Lesson 12: Orientation to DOT/NHTSA Format and Materials
	5:15	Evaluation and Feedback

Note: While this option takes considerably longer to complete it provides for substantially greater opportunities to develop and apply the practical skills contained within the course. Many additional variations are possible; however, the Mini Presentations in lessons 7 & 11 should be completed in one block.

Appendix B
Student Mini Presentation Evaluation Form

Mini Presentation Evaluation Form

Presentor _____

Subject _____

*1	2	3

1. Lesson objectives were made clear to students
2. Lesson introduction created interest and established the need to know
3. All needed supplementary teaching/learning items were ready and organized
4. Instructor maintained proper position for all students to see presentation
5. Aids were well-planned, well-developed, and used appropriately
6. Vocabulary was at appropriate levels
7. The instructor regularly checked with students to see if they were on target
8. Information was presented in an organized format
9. Skill demonstration was presented in a logical step by step sequence
10. Appropriate teaching method(s) was (were) selected to accomplish
11. The instructor's delivery was poised, effective and geared to the topic
12. Instructor stayed on the subject
13. Lesson was too long ( )
    too short ( ) for content
14. Summation and closure were effective

What were this instructor's strengths?

Where might this instructor improve?

* 1=AVERAGE 2=GOOD 3=EXCELLENT

Appendix C
Instructor Training Program Evaluation Form

Student Evaluation Form

Unit: _____

Directions

Please evaluate the materials and content of this unit on the nine items below. Try to focus on its content and format as opposed to the presentor, then answer the additional questions. On the back, please comment on the unit's strength, weakness, and any suggested changes.

organized	1	2	3	4	5	6	unorganized
well formated	1	2	3	4	5	6	poorly formated
interesting	1	2	3	4	5	6	boring
useful	1	2	3	4	5	6	useless
relevant	1	2	3	4	5	6	irrelevant
clear	1	2	3	4	5	6	unclear
comprehensive coverage	1	2	3	4	5	6	poor coverage
practical	1	2	3	4	5	6	impractical
appropriate	1	2	3	4	5	6	inappropriate

previous level of knowledge

high	1	2	3	4	5	6	low

level of involvement

high	1	2	3	4	5	6	low

presentor was

informed	1	2	3	4	5	6	uninformed
articulate	1	2	3	4	5	6	inarticulate
stimulating	1	2	3	4	5	6	boring

Appendix D
Selected References on Instruction and Learning

Periodicals

How to Evaluate Training Programs, Capital Publications, 1300 N 7th Street, Arlington, VA (Monthly)

Phi Delta Kappan, Phi Delta Kappa, Inc., P.O. Box 789, Bloomington, IN (Monthly)

Training and Development Journal, American Society for Training and Development, 606 Maryland Avenue SW, Washington, DC (Monthly)

Training: The Magazine of Human Resource Development, Lakewood Publishing, Inc., 731 Hennepin Avenue, Minneapolis, MN (Monthly)

Books

1. PRINCIPLES OF TEACHING AND LEARNING

Gagne , R.M.: *Essentials of Learning for Instruction.* Holt, Rhinehart and Winston, New York, 1974.

Gagne , R.M.: *The Conditions of Learning.* Holt, Rhinehart and Winston, New York, 1965.

Craig, R.L. (Ed.): *Training and Development Handbook.* McGraw-Hill, New York, 1976.

Kidd, J.R.: *How Adults Learn.* (2nd Ed). Associate Press, Chicago IL, 1979.

Knowles, M.S.: *The Adult Learner: A Neglected Species.* Gulf, Houston TX, 1973.

Knowles, M.S.: *The Modern Practice of Adult Education.* Association Press, New York, 1970.

Laird, D.: *Approaches to Training and Development.* Addison-Wesley, Reading MA, 1978.

Mager, R.F.: *Measuring Instructional Intent or Got a Match.* Fearon Publishing, Belmont, CA 1977

Mager, R.F. and Beach, K.: *Developing Vocational Instruction.* Fearon Publishing, Belmont, CA 1978.

Mager, R.F. and Pipe, P.: *Analyzing Performance Problems.* Fearon Publishing, Belmont, CA 1976.

Scollon, R. and Scollon, S.B.K.: *Interethnic Communication.* Alaska Native Language Center, University of Alaska, Fairbanks, AK 1980.

2. PERFORMANCE OBJECTIVES

Bloom, B. (Ed.): *Taxonomy of Educational Objectives—The Affective Domain.* Donald McKay, New York, 1956.

Bloom, B. (Ed.): *Taxonomy of Educational Objectives—The Cognitive.* Donald McKay, New York, 1964.

Gronlund, N.E.: *Stating Behavioral Objectives for Classroom Instruction.* Macmillan, New York, 1970.

Mager, R.F.: *Preparing Instructional Objectives.* (2nd Ed.), Fearon Publishing, Belmont CA, 1975.

Vargas, J.S.: *Writing Worthwhile Behavioral Objectives.* Harper & Row, New York, 1972.

3. INSTRUCTIONAL AIDS

Anderson, R.H.: *Selecting and Developing Media for Instruction.* Van Nostrand Reinhold, New York, 1976.

Brown, J.W. and Lewis, R.B. (Eds.): *AV Instruction: Technology, Media and Methods.* (5th Ed.), McGraw-Hill, New York, 1977.

Johnson, S.R. and Johnson, R.B.: *Developing Individualized Instructional Material.* Westinghouse Learning Press, Palo Alto CA, 1970.

4. PRACTICAL SKILLS INSTRUCTION

Horn, R. and Zuckerman, D.W.: *The Guide to Simulation/Games for Education and Training.* Information Resources, Lexington MA, 1976.

5. EVALUATION

Becker, W.C.: *Teaching 3—Evaluation of Instruction.* Sciences Research Associates, Chicago IL, 1976.

Denova, C.C.: *Test Construction for Training Evaluation.* Van Nostrand Reinhold, New York, 1979.

Ebel, R.: *Essential of Educational Measurement.* (2nd Ed.), Prentice-Hall, Englewood Cliffs NJ, 1978.

Gronlund, N.E.: *Measurement and Evaluation in Teaching.* Macmillan, New York, 1965.

Kirkpatrick, D.C. (Ed.): *Evaluating Training Programs, A Collection of Articles From the Journal of the American Society for Training and Development.* ASTD, Madison WI, 1975.

Popham, W.J.: *Evaluation in Education.* McCutchan, Los Angeles CA, 1974.

Selected Articles

Broadwell, M.M.: *How to Improve the Next Batch of Course Objectives You Write.* TRAINING, May 1976, Page 50.

Broadwell, M.M.: *The Use and Misuse of A-V.* TRAINING, October 1970, Page 40.

Calkins, C.F., Sanddal, N.D. and Gibson, B.A.: *Characteristics of a Competent EMT Instructor,* THE EMT JOURNAL, 5(2):134, April 1981.

Corbett, N.A., et al: *Simulation as a Tool for Learning.* TOPICS IN CLINICAL NURSING, October 1982, Page 58.

Mallory, W.J.: *Simulations for Task Practice in Technical Training.* TRAINING AND DEVELOPMENT JOURNAL, September 1981, Page 13.

Meier, R.S., et al: *A Method for Training Simulated Patients.* JOURNAL OF MEDICAL EDUCATION, July 1982, Page 535.

Miller, M.: *Test Construction—Principles and Methods.* JOURNAL OF EDUCATION, September/October 1979, Page 21.

Sanddal, N.D.: *Using Needs Assessment to Design Continuing Education Programs.* THE EMT JOURNAL. 5(6):436. December, 1981.

Sanddal, N.D.: *Corrective Feedback: The Tool for Achieving Performance Standards.* THE EMT JOURNAL, 5(5):352, October 1981.

Sanddal, N.D. and Threet, K.L.: *Programmed Patients. A Method of Improving Field Performance.* THE EMT JOURNAL, 5(4):275, August 1981.

Sanddal, N.D. and Shorthill, J.L.: *Task Analysis: Roadmaps to Skill Performance.* THE EMT JOURNAL, 5(3):210, June 1981.

Sanddal, N.D.: *Instructional Design: The Format for Performance.* THE EMT JOURNAL, 5(1):54, February 1981.

Sanddal, N.D. and Calkins, C.F.: *EMT Training: Roles, Responsibilities and Performance Outcomes.* THE EMT JOURNAL, 4(4):66, December 1980.

Waddell, G.: *Simulation—Balancing the Pros and Cons.* TRAINING AND DEVELOPMENT JOURNAL, January 1982, Page 80.

Weigel, A.: *Examining EMT Education: A Shift in Emphasis:* EMERGENCY HEALTH SERVICES REVIEW, Vol. 2(1), 1983, Page 55.

DOT HS 900 085
February 1986